Before the FEDERAL COMMUNICATIONS COMMISSION RECEIVED Washington, D.C. 20554

OCT - 3 1997

In the Matter of Advanced Television Systems)))	FEDERAL COMMUNICATIONS COMMISSION MM Docket No. 87-268 OFFICE OF THE SECRETARY
And Their Impact Upon the Existing Television Broadcast Service)))	DOCKET FILE COPY ORIGINAL

TO: The Commission

REPLY TO OPPOSITION TO SUPPLEMENT TO PETITION FOR RECONSIDERATION

The Mississippi Authority for Educational Television ("MAET"), through its attorneys, hereby files its Reply to the Opposition by Cosmos Broadcasting Corporation ("Cosmos") to MAET's Supplement to Petition for Reconsideration in the above-captioned proceeding, which adopted the Digital Table of Allotments and related technical rules regarding the digital television broadcast service. In support thereof, the following is shown:

1. In its Supplement, MAET included an engineering statement regarding engineering studies with respect to MAET's public television Station WMAE-TV, Booneville, Mississippi, which operates on NTSC Channel *12 and which has been allotted DTV Channel *55. The Commission's DTV allotment is outside the core and would entail wholly unnecessary costs for this statewide public broadcast licensee, Including an initial UHF construction at higher power with a subsequent return to its existing NTSC VHF channel. MAET proposed use of DTV Channel *8 at Booneville, which would involve only a minimum of additional co-channel and adjacent channel interference to four area stations in areas where these stations do not provide service.

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- 2. Cosmos is the licensee of commercial television Station KAIT(TV) on NTSC Channel 8 at Jonesboro, Arkansas. Cosmos is one of the four area licensees which will receive minimal interference, and it is the only one of these four area licensees which seeks to contest MAET's proposal.
- 3. Cosmos opposes MAET's proposed use of DTV Channel *8 rather than DTV Channel *55 at Booneville because that proposed use would allegedly cause objectionable interference to Station KAIT(TV)'s NTSC operations on Channel 8 at Jonesboro. However, the engineering showing accompanying MAET's Supplement to its Petition for Reconsideration demonstrated that only a minimum of interference would be caused to area stations, including Station KAIT(TV).
- 4. Furthermore, as shown in the attached Engineering Statement, MAET has sought to reduce the interference to Station KAIT(TV) without increasing interference to other area stations. It proposes to operate during the transition period using a Dieletric THP-P1 Peanut pattern. As a result, interference to these area stations, including Station KAIT(TV), would occur for the most part in fringe areas where the stations do not provide service. For instance, new interference to Station KAIT(TV) would occur in a 2 mile square area which includes 68 persons in 27 households. In view of the substantial public interests which would be served by MAET operation on DTV Channel *8 instead of Channel *55 at Booneville during the transition period until MAET returns to operation on Channel *12, MAET's proposed change in DTV channel should be approved by the Commission.
- 5. In this connection it should also be noted that Cosmos itself has filed a reconsideration petition in this DTV proceeding, proposing substitution of DTV Channel

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9 instead of DTV Channel 58 as allotted by the Commission. That proposal would

cause interference to NTSC adjacent channel *10 in Memphis, Tennessee. It is

incongruous for Cosmos to defend a DTV channel change at Jonesboro on grounds of

claimed minimal interference while at the same time opposing a DTV channel change

at Booneville which would cause only minimal interference. In fact, MAET has even

modified its engineering proposal at Booneville to reduce interference to Station

KAIT(TV)'s NTSC operation to an infinitesimal 68 persons in 27 households in a two-

square mile area.

WHEREFORE, for all of the foregoing reasons and for the reasons set forth in its

Petition for Reconsideration and Supplement thereto, MAET urges the Commission to

change the DTV allotment at Booneville, Mississippi from Channel *55 to Channel *8

during the transition period until MAET's subsequent return to its existing VHF channel

at Booneville.

Respectfully submitted,

SCHWARTZ, WOODS & MILLER

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202/833-1700

Its Attorneys

October 3, 1997

ENGINEERING STATEMENT OF KEITH G. BLANTON OF THE FIRM OF
KESSLER AND GEHMAN ASSOCIATES, INC., CONSULTING ENGINEERS,
IN CONNECTION WITH THE DIGITAL TELEVISION ASSIGNMENT TO
MISSISSIPPI AUTHORITY FOR EDUCATIONAL TELEVISION
LICENSEE OF TELEVISION BROADCAST STATION WMAE-TV NTSC CHANNEL 12
AT BOONEVILLE, MISSISSIPPI

I, Keith G. Blanton, am an associate of Kessler and Gehman Associates, Inc., with offices in Gainesville, Florida. I have been working in the field of radio and television consulting engineering since 1961. I graduated from Duke University in 1951 with a Bachelor of Science degree in Physics.

This firm has been employed by Missippi Authority for Educational Television licensee of television broadcast station WMAE-TV operating on channel 12 at Booneville, Mississippi to make engineering studies in connection with the assignment in the 6th Report and Order in MM Docket 87-268 of UHF channel 55 to be used by WMAE-TV for digital television broadcasting. It is proposed that WMAE-TV be permitted to operate using DTV technology on VHF channel 8 rather than on UHF channel 55 as proposed in the 6th Report and Order. Studies had been made in accordance with OET Bulletin No. 69 which showed that WMAE-TV could radiate 3.16 kW ERP at its licensed antenna height of 386 meters AMSL using its licensed directional antenna and causing only a minimum of additional interference to cochannel and adjacent channel NTSC stations KAIT-TV channel 8 at Jonesboro, AR, WDCN channel 8 at Nashville, TN, WTVA channel 9 at Tupelo, MS, and WBBJ-TV channel 7 at Jackson, TN. However the licensee of KAIT-TV channel 8 at Jonesboro, AR filed an opposition to the proposed operation claiming that the NTSC channel 8 operation of KAIT would receive new interference to 84 square kilometers within their licensed Grade B contour.

In an effort to reduce the interference to KAIT-TV without unduly increasing the interference to WDCN, WTVA and WBBJ we now propose to operate during the transition period from the licensed site and height using a Dielectric THP-P1 Peanut pattern a copy of which is included as Figure 10. These studies are submitted as Figures 1 through 9 to show the coverage of each of the studied stations along with the interference they would receive from the proposed operation of WMAE-TV. It is shown that the interference within the

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Grade B contours of the cochannel and adjacent channel stations occurs for the most part in areas where that station does not provide service.

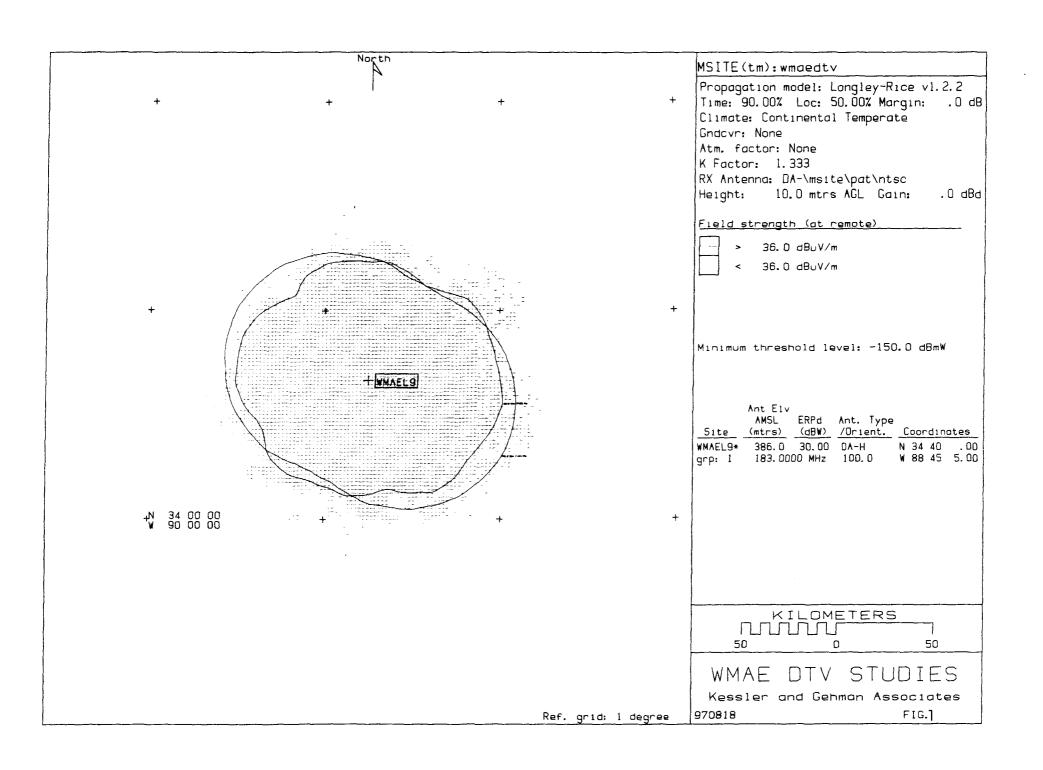
It is pointed out that there is a 2 mile square area located 88.3 kM at N166.2°E from the KAIT-TV site and shown on Figure 3 where there is new interference to KAIT-TV. There is one census enumeration district whose centroid falls in that area which includes 68 persons in 27 household. The D/U ratio at that point is 33 dB rather than the required 34 dB for no interference.

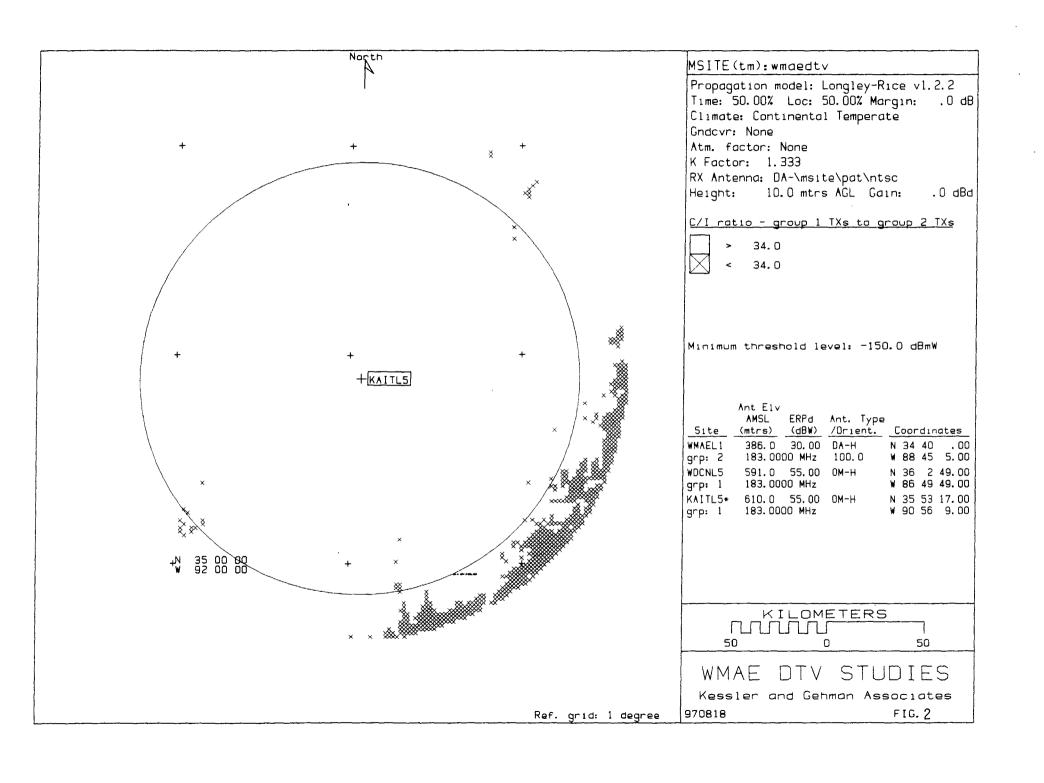
KESSLER AND GEHMAN ASSOCIATES, INC.

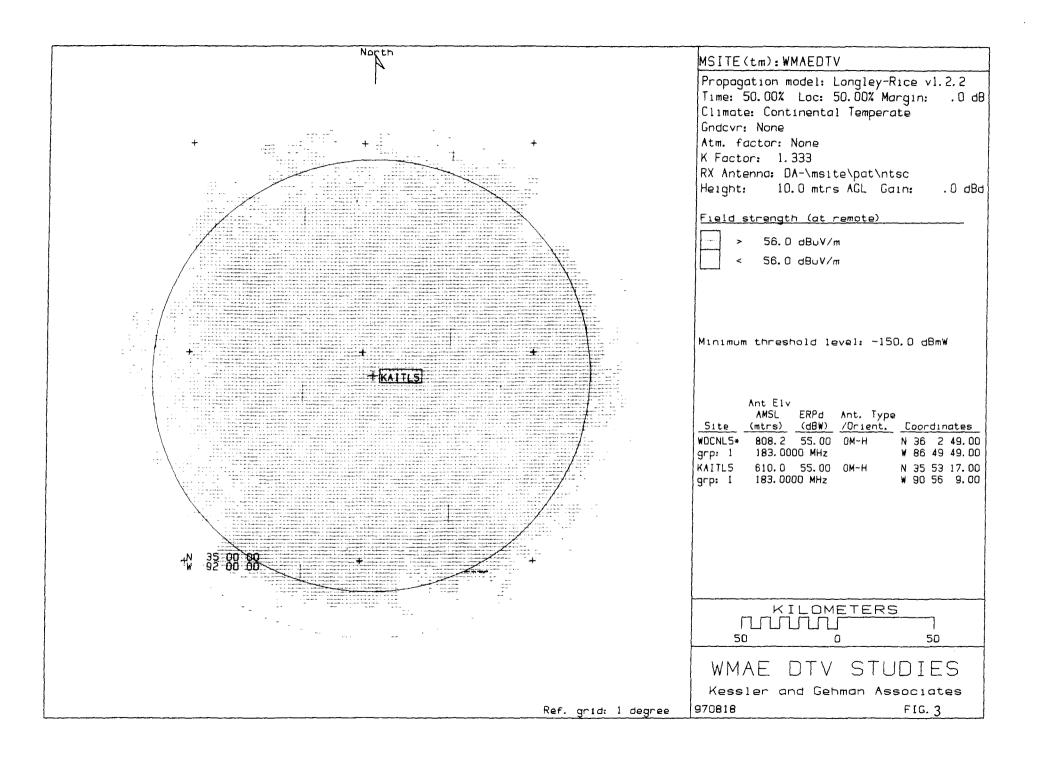
October 2, 1997

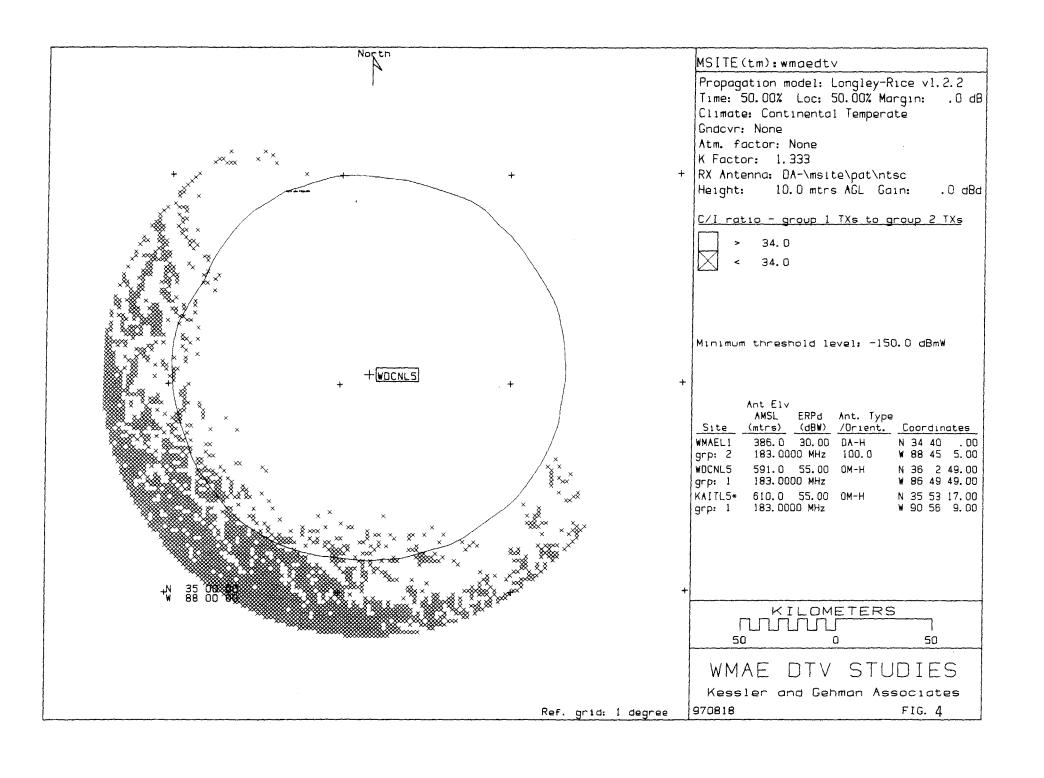
Keith G. Blanton, Consultant

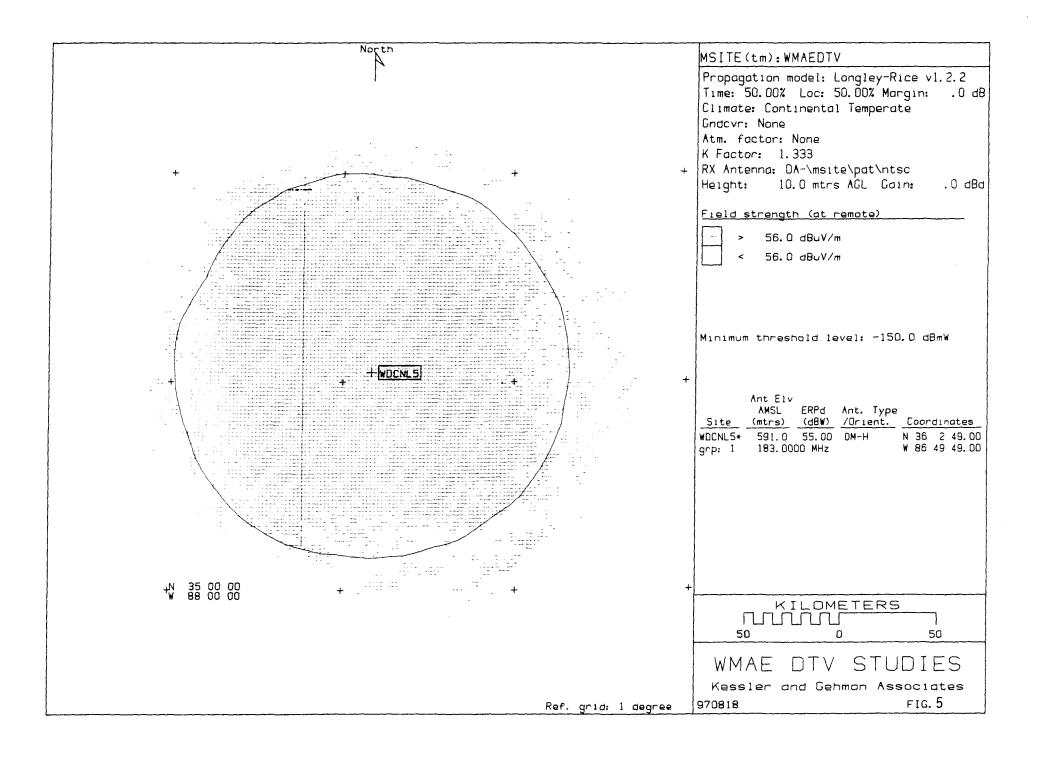
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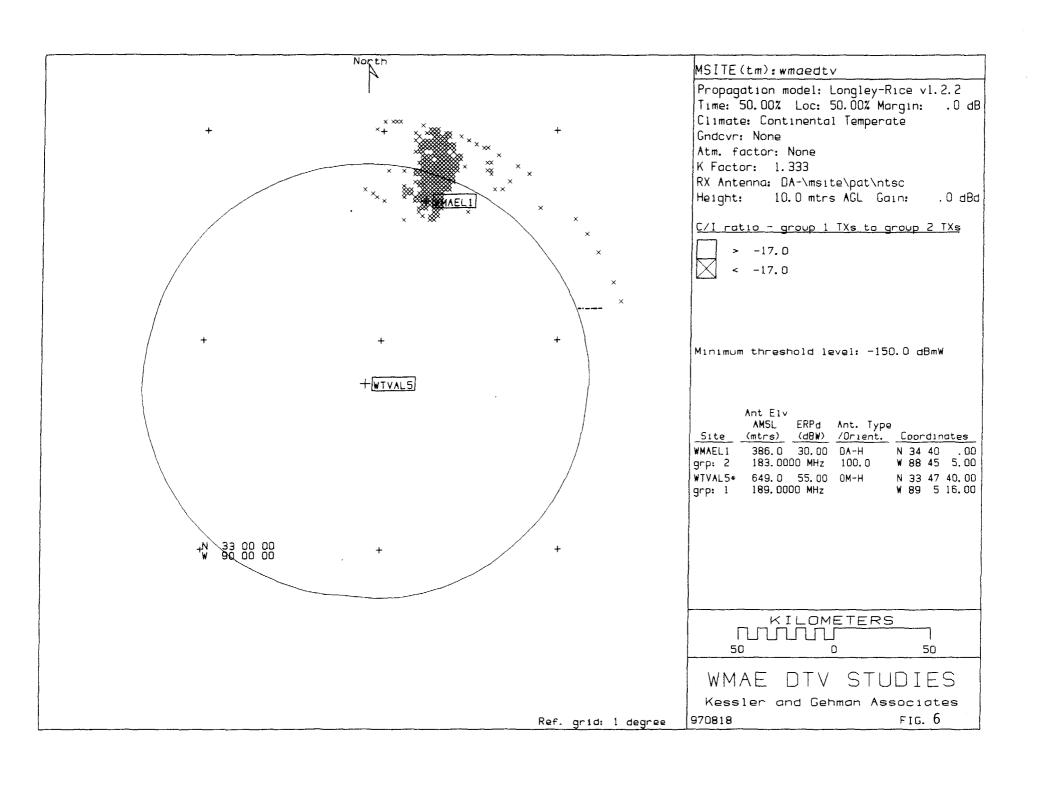


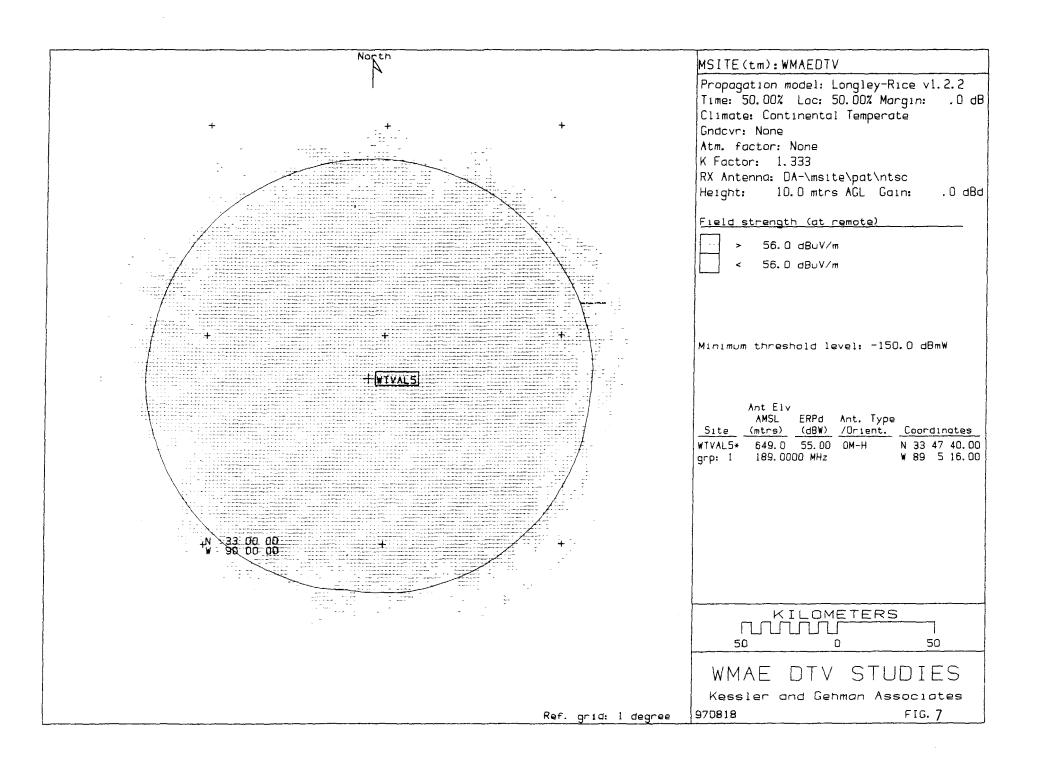


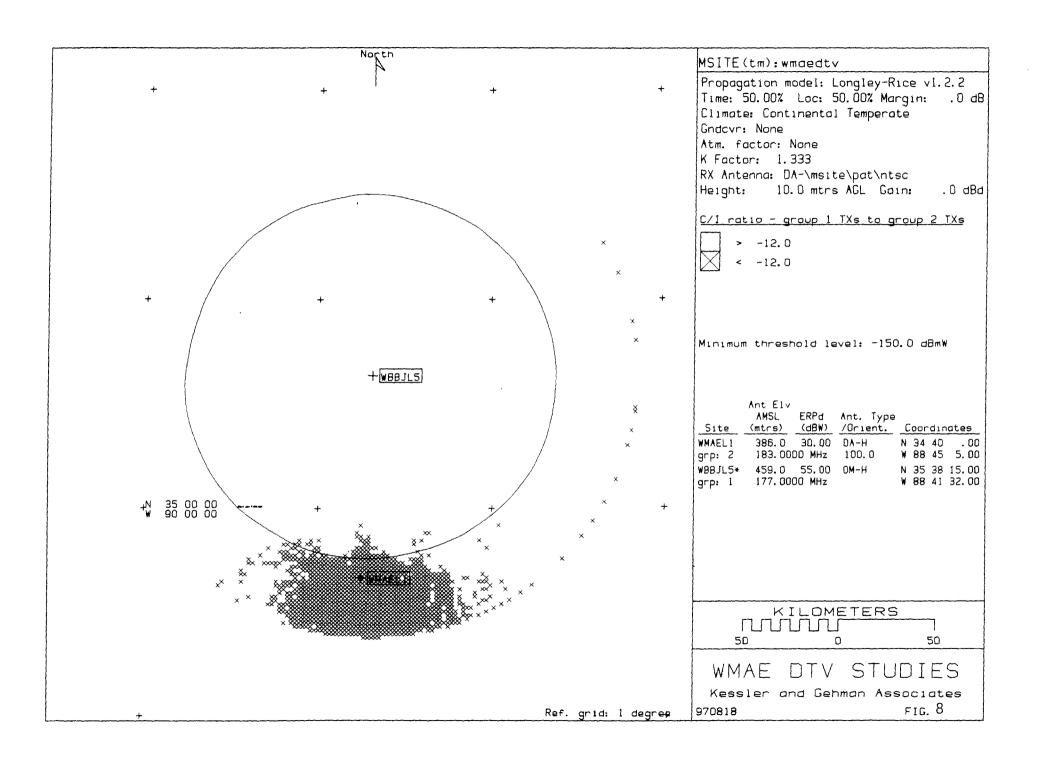


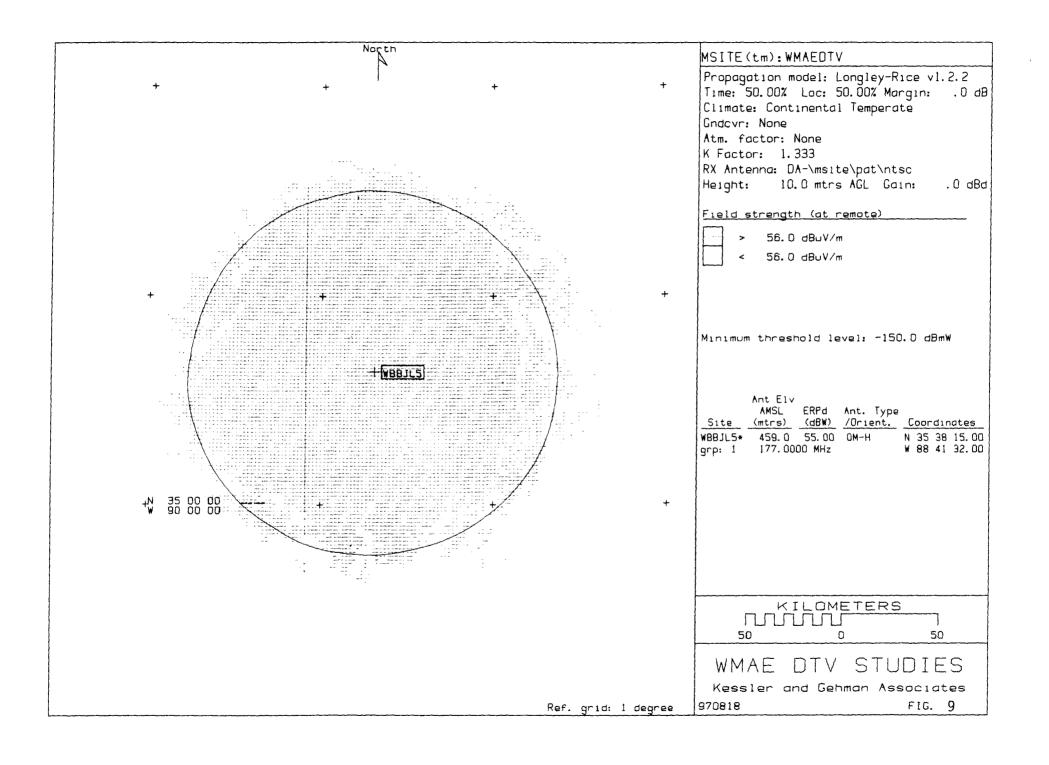










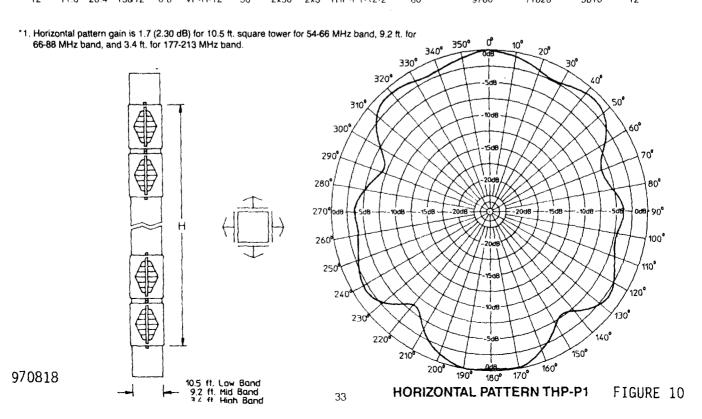


H PANEL ANTENNAS TYPE THP-P1 PEANUT

ELECTRICAL SPECIFICATIONS

MECHANICAL SPECIFICATIONS

	No. of Layers		Peak Gain * 1.	Null Fill %	Beam Tilt deg.	Vertical Pattern No.	Power Rating kW	Inp Zo Ohms	ut Size In	Antenna Type No.	APERTURE H (ft)	MAXIMUM I No Radome (Ib)		WEIGHT	NO. OF LAYERS	
54-66 MHz FCC CH. 2. 3				0	0	WD II 1	17	50	•	THP-P1-1-1		5410	5650	3000	1	
	1	1.1	1.9	0	0	VP-H-1	17	50	3		14.5				1	
	2	2.1	3.6	0	0	VP-H-2	34	50	3	THP-P1-2-1	30.8	10730	11190	5890	2	ဂ ့်
	2	2.1	3.6	0	0	VP-H-2	34	2x50	2x3	THP-P1-2-2	30.8	10850	11310	6110	2	. 2
	3	3.2	5.4	0	0	VP-H-3	51	50	3	THP-P1-3-1	47.0	15940	16630	8790	3	Ō
	4	4.2	7.1	0	0	VP-H-4	68	50	3	THP-P1-4-1	63.3	21140	22060	11630	4	Ē
	4	4.2	7.1	0	0	VP-H-4	68	2x50	2x3	THP-P1-4-2	63.3	21580	22510	11930	4	Ва
	5	5.1	8.7	7	0.5	VP-H-5	68	50	3	THP-P1-5-1	79.5	26740	27900	14700	5	THP-Low Band (Ch. 2-3)
	5	5.1	8.7	7	0.5	VP-H-5	68	2x50	2x3	THP-P1-5-2	79.5	26920	28080	14810	5	ب
	6	6.0	10.2	12	0.6	VP-H-6	90	50	3	THP-P1-6-1	95.8	32180	33570	17700	6	生
	6	6.0	10.2	12	0.6	VP-H-6	90	2x50	2x3	THP-P1-6-2	95.8	32260	33650	17700	6	_
66-88 MHz FCC CH. 4, 5, 6	1	1.1	1.9	0	0	VP-H-1	14	50	3	THP-P1-1-1	11.5	4040	4240	2370	1	
	2	2.1	3.6	0	. 0	VP-H-2	28	50	3	THP-P1-2-1	24.2	7940	8340	4630	2	_
	2	2.1	3.6	0	0	VP-H-2	28	2x50	2x3	THP-P1-2-2	24.2	8060 -	8460	4850	2	4-6
	3	3.2	5.4	0	0	VP-H-3	42	50	3	THP-P1-3-1	36.9	11760	12350	6900	3	è
	4	4.2	7.1	0	0	VP-H-4	57	50	3	THP-P1-4-1	49.6	15640	16420	9140	4	ပ္
	4	4.2	7.1	0	0	VP-H-4	57	2x50	2x3	THP-P1-4-2	49.6	15970	16760	9400	4	Ę.
	5	5.1	8.7	7	0.5	VP-H-5	70	50	3	THP-P1-5-1	62.3	19910	20890	11600	5	8
	5	5.1	8.7	7	0.5	VP-H-5	70	2x50	2x3	THP-P1-5-2	62.3	19890	20870	11650	5	Š
	6	6.0	10.2	12	0.6	VP-H-6	75	50	3	THP-P1-6-1	75.1	24000	25170	13990	6	THP-Mid Band (Ch. 4-6)
	6	6.0	10.2	12	0.6	VP-H-6	75	2x50	2x3	THP-P1-6-2	75.1	23810	24990	13900	6	
177-213 MHz FCC CH. 7-13	3	3.2	5.4	0	0	VP-H-3	27	50	3	THP-P1-3-1	. 15	2310	2830	1410	3	
	4	4.2	7.1	0	0	VP-H-4	35	50	3	THP-P1-4-1	20	3000	3680	1790	4	
	4	4.2	7.1	0	0	VP-H-4	36	2x50	2x3	THP-P1-4-2	20	3370	4060	2110	4	
	5	5.1	8.7	7	0.5	VP-H-5	35	50	3	THP-P1-5-1	25	3920	4780	2450	5	3
	5	5.1	8.7	7	0.5	VP-H-5	36	2x50	2x3	THP-P1-5-2	25	4100	4960	2500	5	7.1
	6	6.0	10.2	12	0.6	VP-H-6	35	50	3	THP-P1-6-1	30	4740	5780	2870	6	કં
	6	6.0	10.2	12	0.6	VP-H-6	38	2x50	2x3	THP-P1-6-2	30	4840	5870	2890	6	9
200	8	8.0	13.6	12	0.6	VP-H-8	35	50	3	THP-P1-8-1	40	6120	7490	3620	8	ä
177 FCC	8	8.0	13.6	12	0.6	VP-H-8	50	2x50	2x3	THP-P1-8-2	40	6240	7620	3660	8	6
	10	10.0	17.0	1287	0.6	VP-H-10		50	3	THP-P1-10-1		8120	9840	4980	10	Ē
	10	10.0	17.0	1287	0.6	VP-H-10	50	2x50	2x3	THP-P1-10-2	1	8070	9790	4960	10	THP-High Band (Ch. 7-13)
	12	11.8	20.4	13812		VP-H-12		50	3	THP-P1-12-1	ļ.	9870	11930	5850	12	Ŧ
	12	11.8	20.4	13812		VP-H-12		2x50	2x3	THP-P1-12-2	**	9760	11820	5810	12	
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CERTIFICATE OF SERVICE

I, Lisa Eyeson, Secretary in the law office of Schwartz, Woods & Miller, do hereby certify that I have on this 3nd day of October 1997 sent copies by First Class Mail of the foregoing REPLY TO OPPOSITION TO SUPPLEMENT TO PETITION FOR RECONSIDERATION to the following:

Werner K. Hartenberger, Esquire Counsel for Cosmos Broadcasting Corporation Dow Lohnes & Albertson, P.L.L.C. 1200 New Hampshire Avenue, NW Suite 800 Washington, DC 20036-6802

Lisa Eyeson